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09/194,297 11/23/98 PALLONEN

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MICHAEL B. LASKY  
ALTERA LAW GROUP  
10749 BREN ROAD EAST, OPUS 2  
MINNEAPOLIS MN 55343

EXAMINER

TRAN, P

ART UNIT

PAPER NUMBER

2684

DATE MAILED:

05/11/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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# Office Action Summary

Application No.

09/194,297

Applicant(s)

PALLONEN, JORMA

Examiner

Pablo N Tran

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) 4 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 recites the limitation "said location information" in the preamble. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Tayloe et al.* (EP0431956A2).

As per claims 1 and 5, *Tayloe et al.* disclosed a base station of a radio system, which base station comprises:

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- antenna equipment for receiving signals from a certain mobile station (fig. 1/no. 100) simultaneously by at least two antenna beams (fig. 1/no. 101, 106, 111) directed in different directions;
- measuring equipment for measuring the signal levels of the signals received by the different antenna beams (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52);
- equipment for defining a timing advance for the mobile station which is in radio connection with the base station to compensate for a time lag caused by the distance between the mobile station and the base station (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52);
- calculation means which are responsive to the measuring equipment for determining the direction from the base station to the mobile station on the basis of the relations of the signal levels measured for the different antenna beams (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52), and which calculation means comprise equipment for calculating the distance between the base station and the mobile station on the basis of the timing advance defined for the mobile station and the propagation speed of the radio signals (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52);
- wherein said calculation means are adapted to transmitted said direction and said distance further in the system in order to be used for making handover decisions (col. 5/ln. 42-col. 6/ln. 2, col. 8/ln. 34-40).

As per claims 2 and 6, *Taylor et al.* further disclosed the calculation means are arranged for calculating for each beam the mean value of the signal levels of the signals received from the mobile station by the respective antenna beams, whereby the calculation means are arranged to

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determine the direction from the base station to the mobile station on the basis of relations between the calculated mean values (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52).

As per claims 3 and 7, *Tayloe et al.* further disclosed the calculation means include means for choosing the antenna beam (1) with the strongest signal level and at least one adjacent beam (2), wherein the calculating means are arranged for determining the direction from the base station to the mobile station on the basis of the relations of the signal levels (RSSI1, RSSI2) of the signals received via the chosen antenna beams (1, 2) (abstract, fig. 1, pg. 5/ln. 15-pg. 6/ln. 16).

As per claim 8, *Tayloe et al.* further disclosed said base station is a base station of a cellular radio system divided into logical traffic channels in accordance with a TDMA principle (abstract, fig. 3, col. 4/ln. 19-col. 5/ln. 52).

#### ***Allowable Subject Matter***

5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Doner (5,657,487), Mallinckrodt (5,612,703), Kinoshita et al. (5,432,842), Gerard et al. (5,884,164), Keskitalo et al. (5,893,033), Light et al. (6,061,337), Lui et al. (6,122,260) disclose mobile station location process making use of handoff data.

***Response to Amendment***

7. Applicant's arguments filed June 1, 1999 have been fully considered but they are not persuasive.

In response to the Applicant's arguments, the Applicant's stated that "*Tayloe fails to teach or suggest that the distance and the direction to the mobile station should be used for making a handover decision*".

As per claims 1 and 5, *Tayloe et al.* disclosed a base station of a radio system wherein said calculation means are adapted to transmitted said direction and said distance further in the system in order to be used for making handover decisions (col. 4/ln. 31-43, col. 5/ln. 42-col. 6/ln. 2, col. 8/ln. 34-40). Furthermore, in order to simplify the issue, a 102 rejection as stated by Tayloe et al. instead of a 103 rejection by Tayloe et al. in view of Hayes et al. This is due to the fact that Tayloe et al. disclosed or suggested every limitation as claimed, but was not addressed in the first action.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**Any response to this final action should be mailed to:**

**Box AF**

**Commissioner of Patents and Trademarks**

**Washington, D.C. 20231**

**or faxed to:**

**(703) 308-9051, (for formal communications; please mark**

**“EXPEDITED PROCEDURE”)**

**Or:**

**(703) 308-9508, (for informal or draft communication, please**

**label “PROPOSED” or “DRAFT”)**

**Hand-delivered responses should be brought to Crystal Park II, 2121**

**Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).**

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8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Pablo Tran whose telephone number is (703)308-7941. The fax number for this Group is (703)308-6306 and (703)308-6296.

Any inquiry of a general nature to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)305-4700.

May 2, 2001

Pablo Tran

  
Examiner, Art Unit 2684

  
**DANIEL HUNTER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**